Claims

1. Method for graphically processing an image, provided by a camera device (310), of the surroundings of a vehicle (400), in particular in the direction of travel of the vehicle, to an observer, in particular, the driver of the vehicle, characterized by detection of an obstacle (100) in the surroundings of the vehicle (400) and determining its real position, preferably relative to the position of the vehicle (400); determining the real position of the obstacle in the surroundings and the corresponding position of the obstacle (100) in the image provided by the camera device; and processing the image thereby taking into consideration the determined position of the obstacle in the image.

2. Method according to claim 1, characterized in that a graphical object (210) in the form of the expected, future course of travel of the vehicle (400), preferably determined on the basis of the steering angle of the vehicle (400), is faded into the image of the camera device (310); the position of the obstacle in the surroundings is determined in the form of the real distance between the obstacle and the vehicle (400) or the camera device (310); and the position of the obstacle (100) in the image, preferably the position of the side (100) of the obstacle facing or closest to the camera device, represents the determined real distance between the obstacle and the camera device (310) e.g. relative to a fictitious camera position represented by a lower edge of the image.

3. Method according to claim 2, characterized in that the graphical object (210) which is faded into the image of the camera device in the form of the course of travel comprises a limit as a symbol of the end of the travelling motion in the form of a limiting line (212) and/or

in the form of a limiting means (214) symbolically presented on the course of travel, such as e.g. a barrier or a gate or a fence and disposed approximately at the level of the determined position of the obstacle in the image.

4.   Method according to claim 2 or 3, characterized in that the graphical object (210) in the form of the course of travel is imaged only to approximately the level of the determined position of the obstacle in the image, but not for larger distances from the vehicle or the camera device (310).

5.   Method according to claim 2 or 3, characterized in that, for large separations from the vehicle, the graphical object (210, 210') in the form of the course of travel is only schematically indicated, e.g. in the form of dashed lines, beyond the approximate location of the determined position of the obstacle in the image.

6.   Method according to any one of the preceding claims, characterized by: detection of at least one region (I, II, III) of the surroundings of the vehicle, where the obstacle (210) is located and as viewed by the camera device (310), and fading in of at least one graphical object (220-1,...-3) into the image of the camera device (310) which optically emphasizes the correlation between the obstacle and the at least one region and/or the position of the obstacle (110, 120, 130) within this region (I, II, III) to the viewer of the processed image.

7.   Method according to claim 6, characterized in that a bar which preferably extends from the lower edge of the image in a vertical direction is faded into the image as graphical object (220-1,...-3) in order to indicate the position of the obstacle (110, 120, 130) relative to the position of the vehicle or the camera device (310), wherein the

horizontal position of the bar in the image represents the region (I, II, III) of the surroundings; and/or wherein the height/length (H1, H2, H3) of the bar in the vertical direction represents the determined distance between the obstacle and the vehicle.

8. Method according to claim 7, characterized in that the outline of the bar (220'-1,...-3) is adjusted to the representation of the determined course of travel and is represented in a correspondingly bent and/or distorted fashion.

9. Method according to any one of the preceding claims, characterized in that a graphical object (214) is faded into the image at the position of the obstacle (100) in the image, preferably at the position of the side of the obstacle facing or closest to the camera device (310), such that the obstacle (100) is at least partially covered.

10. Method according to claim 9, characterized in that the outline of the graphical object (110, 120, 130) has a basic geometric form such as e.g. rectangular, oval or triangular etc., or the form of the determined outline of the obstacle.

11. Method according to any one of the claims 2 through 10, characterized in that the graphical object (210, 220) is semi-transparent or represented only as an outline.

12. Method according to any one of the claims 2 through 10, characterized in that the graphical object (210, 220) is represented as a colored surface, wherein the color can optionally be varied in accordance with the determined distance between the obstacle (100) and the vehicle (400) or the camera device (310).

13. Method according to any one of the claims 1 through 12, characterized in that the image of the camera device (310) is manipulated in the region of the determined position of the obstacle (100), e.g. by brightening or coloring, wherein the manipulation can optionally be varied in accordance with the magnitude of the determined distance between the obstacle (100) and the vehicle (400) and/or by varying the manipulation in time, e.g. in the form of flashing effects.

14. Computer program comprising a program code for a warning device (300) of a vehicle (400), characterized in that the program code is designed to perform the method in accordance with any one of the claims 1 through 13.

15. Data carrier, characterized by the computer program according to claim 14.

16. Warning device (300) for a vehicle (400), comprising a camera device (310) for generating images of the surroundings of the vehicle, preferably in the direction of travel; an image processing device (320) for processing the images produced by the camera device (310); and a display means (340) for displaying the processed image to a viewer, in particular, the driver of the vehicle; characterized in that an obstacle detection/distance measuring device (320) is provided for detecting an obstacle (100) in the surroundings of the vehicle (400) and for determining the real position of the obstacle (100), preferably relative to the vehicle (400); a transformation device (320) is provided for transforming the real position of the obstacle in the surroundings into a corresponding position of the obstacle in the image of the camera device (310); and the image processing device (320) is designed to process the image of the camera device (310),

thereby taking into consideration the determined position of the obstacle (100) in the image.

17. Warning device (300) according to claim 16, characterized in that the image processing device (320) is designed to process the image of the camera device (310), thereby still taking into consideration the vehicle parameters, such as e.g. the steering angle (LW).